

YUZHAKOV, M.N.

The KPSH-2 unit for sinking shaft necks. Biul.tekh.-nauch.inform.
Gos.nauch.-issl.inst.nauch.i tekhn.inform. no.9:17-18 '53.

(MIRA 16:10)

YUZHAKOV, N. I. Guards Captain of the Medical Service

"Organization of the Mouth Cavity Sanation for the Personnel of a Unit,"
Voyenno-Med. Zhur., No.5, pp 78-79, 1955

102ZHAKOV, V. I. 2

ADDITIONAL COLORING OF ALKALI HALIDE CRYSTALS. S. A. ARTYUKHIN, V. M. YUZHAKOV AND I. B. MUKHOMEROVA. *Comm. Acad. Sci. (U. R. S. S.)* 1938A, 107-63 (in Russian).—By means of Renner's method (C. A. 23, 8324) expts. were made to introduce coloration into NaCl by means of Na and K and into KCl by means of K, etc., up to 700° and at potentials up to 44 v./cm. In another series of expts. alkali halide crystals were mixed with wires made of W, Cu, Ni, Fe, etc., and a current was passed at 300 v./cm., while the mixts. were heated to 600-700°. The kind of wire used seemed to make no difference. Coloration of salts under similar conditions was also accomplished by means of liquid metals. In all cases coloration was not a simple case of diffusion of atoms, but rather an interchange of electrons between the metal and the salt. The e. m. f. (K) of the system Na-NaCl-Cu was studied. The values for E_{250° , E_{307° , E_{418° , E_{506° , E_{606° and E_{745° were 2.35, 2.53, 2.56, 2.45, 2.25, 2.22 and 2.07, resp. S. L. M.

ASH-51A METALLURGICAL LITERATURE CLASSIFICATION

RECORD SYMBOL										RECORD SYMBOL																																																																																									
TENSOR										TENSOR																																																																																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

YUZITSKOV, V.M.

3

THE TRANSITION OF ELECTRONS FROM SODIUM INTO ROCK SALT.
V. M. Yuzitskov. *Compt. rend. acad. sci. U. R. S. S.*
6, 128-130 (1954) (1954). When a crystal of
rock salt with metallic Na impurities in the side was heated
to 500-700° an intense violet coloration emanated from the
Na, which upon sudden cooling to room temp. gave the
typical yellow D lines. If the Na was under a cathode
in an elec. circuit the color spread more rapidly. The
rapid fading of the color was attributed to passage of the
electrons into the crystal. The variation of electron escape
with changes in temp., field strength and current was com-
pared with the thermal electron emission in a vacuum.

The theory is discussed with reference to excitation levels.
H. H. DeMott

23. An expression of Biot-Savart's law. V. M. Yuzvinsky, *Elektricheskoe*, 1934, No. 8, 37-38. In Russian.

A mathematical expression of Biot-Savart's law is presented which differs from the conventional form and applies to closed instead of open circuits or circuit elements. However, it is no more difficult to apply, e.g., to infinite linear conductors than the usual form.

H. F. KRALL

U S S R

Y The electric field effect on the additive coarsening of rock salt crystals. V. M. Yutshakov and F. G. Delneka (Leningrad Inst. of Technol., Leningrad). Doklady Akad. Nauk S.S.S.R. 94, 871-2(1954).—To study the crystals, specimens $1 \times 1 \times 1.5$ cm were split in 2 parts in approx. proportion of 1:2, and a well 0.2-0.5 mm deep was drilled into the larger piece and filled with molten Na. The 2 sections were joined, and the crystal was heated in a ceramic stand shown. The bottom piece was kept in contact with liq.

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①

Calculation was reduced at higher field strength.

112-57-8-16120

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 8, p 10 (USSR)

AUTHOR: Yuzhakov, V. M.

TITLE: On the Problem of Measurement of the Specific Charge of Conduction
Electrons (K voprosu ob izmerenii udel'nogo zaryada elektronov provodimosti)

PERIODICAL: Zap. Leningr. zauch. industr. in-ta (Notes of the Leningrad
Correspondence Industrial Institute), Leningrad, LGU, 1955, pp 55-62

ABSTRACT: Knowledge of the specific charge of current carriers, i.e., charge/
mass ratio e/m , and consequently the effective mass of an electron in metals
and semiconductors, is necessary for a successful development of the theory
of electrical conduction. The specific charge, as Maxwell showed, can be de-
termined by means of electric inertia phenomena. The Coriolis' effect is
offered as an inertial effect which, for a rotating particle, represents the iner-
tial force: $f_k = 2m[v\omega]$, where m is the mass of the particle, v is the velocity
and ω is the angular velocity of rotation. On the other hand, Lorenz' force is:
 $f_A = e[vH]/c$. A comparison of f_k and f_A shows that the rotation with angular
velocity ω produces the same effect on the electron as the magnetic field H if ω
is parallel to H and $\omega = He/2cm$. Thus e/m can be determined by measuring ω and H .

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001963310013-4

112-57-8-16120

On the Problem of Measurement of the Specific Charge of Conduction Electrons

methods (zero methods), which eliminate the effects of various assumptions made in earlier works. Assuming the presence of the electric inertial induction (similar to the electromagnetic induction) in conductors, which is caused by the rotation of a current-carrying conductor, the author suggests three methods of determination of e/m based on a comparison of inertial and magnetic emfs: (1) a dynamo-electric machine mounted on a special device which allows rotation around the axis parallel to its magnetic field lines; (2) a moving-coil inertial galvanometer with vertical axis of rotation; (3) Hall's inertial effect (a rotation is substituted for the magnetic field). Bibliography: Nine items.

M. D. M.

Card 2/2

YUZHAKOV, V. M.

USSR/Physics - Conduction electrons

FD-2986

Card 1/1 Pub. 146 - 27/28

Author : Yuzhakov, V. M.

Title : Measurement of the specific charge of conduction electrons

Periodical : Zhur. eksp. i teor. fiz., 29, September 1955, 388-390

Abstract : In connection with the development of the theory of metals and semiconductors the problem arose of the experimental determination of the ratio e/m and also the effective mass for conduction electrons. For new measurements of the quantity e/m for conduction electrons, besides improvements in experimental techniques, the writer notes the need for a new method that permits more simple and accurate interpretation of the experiments, such measurements to values of e/m with error not exceeding 1%. He discusses a simple example. Three references.

Institution : Leningrad Correspondence Industrial Institute (Leningradskiy zaochnyy industrial'nyy institut)

Submitted : November 15, 1954

21(1)

SOV/139-59-1-30/34

AUTHOR: Yuzhakov, V.M.

TITLE: On the Classical Radius of an Electron (O klassicheskom radiuse elektrona)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, 1959, Nr 1, p 168 (USSR)

ABSTRACT: In classical electrodynamics the electron radius r_0 is determined by equating the electron self-energy mc^2 to its electrostatic field or its magnetic field energy. In the first case we find (for a uniform distribution of charge on the assumed spherical surface of the electron) $r_0 \sim 10^{-13}$ cm, while in the second case $r_0 \sim 10^{-11}$ cm. In the first case the magnetic field is not allowed for, while in the second the electrostatic field is omitted. The present note describes calculation of the electron radius with both electrostatic and magnetic fields taken into account. The author equates the electron momentum to its electromagnetic momentum. The value of the electron radius is found to be $r_0 = ge^2/3mc^2$, where g is the gyromagnetic ratio and e is the electron charge.

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On the Classical Radius of an Electron

SOV/139-59-1-30/34

This value is comparable with the value of the electron radius obtained by equating its energy to the energy of the electrostatic field ($r_0 = e^2/2mc^2$). The paper is entirely theoretical.
There is 1 Soviet reference.

ASSOCIATION: Severo-Zapadnyy Zaochnyy Politekhnicheskii Institut
(North-West Polytechnical Correspondence Institute)

SUBMITTED: May 23, 1958

Card 2/2

34193

S/139/61/000/006/012/023

K039/E320

9,3700(1057,1442)

AUTHOR: Yuzhakov, V.M.

TITLE: On an expression for the intensity of the electromagnetic impulse in a transparent dielectric

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no. 6, 1961, 87 - 89

TEXT: An investigation of the passage of electromagnetic waves through the boundary of a homogeneous transparent dielectric leads to the conclusion that the intensity of the electromagnetic impulse can be expressed by the Minkowski formula, and not Abraham's, which means that the introduction of a homogeneous transparent dielectric is a non relativistic approximation. The intensity vectors of the electromagnetic impulses are given by the expressions:

of Minkowski
$$\underline{G} = -\frac{1}{c} [\underline{DB}] \quad (1)$$

and of Abraham
$$\underline{G} = -\frac{1}{c} [\underline{EH}] \quad (2)$$

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S/139/61,000/006/012/023

EO39/E320

On an expression

Various authors have quoted both of these expressions as being valid in the above case. A rigorous examination is made in this paper and an expression is derived for the intensity of the impulse in the dielectric. Taking the case for an e.m. wave passing from a vacuum into a dielectric at normal incidence - in a time dt the surface of the dielectric S receives an impulse of strength:

$$pSdt$$

where p is the wave pressure.

Hence:

$$pSdt = GScdt + G'Scdt - G''S \frac{c}{n} dt \quad (3)$$

where G , G' and G'' are absolute values of the intensity of the impulse appropriate to the incident, reflected and transmitted waves, c is the velocity of light in vacuo and n the refractive index of the dielectric. p can also be found

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On an expression

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S/139/61/000/006/012/023
EO39/E320

from a consideration of the electric and magnetic strains E, H, E', H', E'' and H'' caused by the incident, reflected and transmitted waves. This reduces to:

$$p = \frac{2E^2}{(m+1)^2} (m^2 + 1 - \epsilon - m^2\mu) \quad (7)$$

where $m = \sqrt{\epsilon/\mu}$. Taking into account multiple reflections from both surfaces of the dielectric, the sum of the pressures is positive and the intensity of the impulses G, G' and G'' are as follows:

$$\left. \begin{aligned} G &= \frac{1}{c} \left| \begin{bmatrix} E & H \end{bmatrix} \right| = \frac{1}{c} E^2 \\ G' &= \frac{1}{c} \left| \begin{bmatrix} E' & H' \end{bmatrix} \right| = \frac{1}{c} \left(\frac{m-1}{m+1} \right)^2 E^2 \end{aligned} \right\} \quad (8)$$

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S/139/61/000/016/012/023
E039/E320

On an expression

$$Q'' = \frac{k}{c} \left| \begin{bmatrix} E'' & H'' \end{bmatrix} \right| = \frac{k}{c} \left(\frac{4m}{m+1} \right) E^2 \quad (9) .$$

k is obtained by substituting Eqs. (7), (8) and (9) in Eq. (3), which reduces to:

$$k = \frac{1}{2} \left(\epsilon \frac{n}{m} + mn\mu \right) \quad (10) .$$

$n = \sqrt{\epsilon\mu}$ and therefore

$$k = \epsilon\mu \quad (11) .$$

These results lead to the conclusion expressed at the beginning, i.e. that the Minkowski formula should be used in the case considered.

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S/139/61/000/006/012/023
EO39/E320

On an expression

There are 5 references: 1 Soviet-bloc and 4 non-Soviet-bloc.

The English-language reference mentioned is: Ref. 4:

H.L. Balazs - Phys. Rev., 91, 408, 1953.

ASSOCIATION: Severo-Zapadnyy zaochnyy politekhnicheskiy
institut (North-western Polytechnical Institute
by Correspondence)

SUBMITTED: November 26, 1960

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Card 5/5

YUR'YEV, Mikhail Alekseyevich; SKLYAREVICH, Viktor Vladimirovich;
KHITUN, Vsevolod Andreyevich; GOFMAN, Irina Arturovna;
~~YUZHAKOV, V.M., red.~~; PERKOVSKAYA, G.Ye., red. izd-va;
MURASHOVA, V.A., tekhn. red.

[Physics class work for students of medical institutes]
Praktikum po fizike; [dlia meditsinskikh vuzov. By]
M.A.IUr'ev i dr. Moskva, Gos.izd-vo "Vysshaya shkola,"
1962. 266 p. (MIRA 15:11)

(Physics)

YUZHAVOV, V.M.

Remarks on the magnetic field in the tail of Mrkos' comet, 1957 d.
Astron.zhur. 40 no.4:779 J1-Ag '63. (MIRA 16:8)
(Comets) (Magnetic fields (Cosmic physics))

ACCESSION NR: AP4029224

S/0106/64/000/004/0068/0074

AUTHOR: Yushakov, V. V.

TITLE: 'Phasometric method of measuring complex h-parameters of transistors

SOURCE: 'Elektrosvyaz', no. 4, 1964, 68-74

TOPIC TAGS: transistor, transistor parameter, h parameter, common emitter

ABSTRACT: The complex h-parameters of transistors can be measured much more simply by a phase meter than by a high-frequency bridge. In the phasometric method both the absolute value and the phase angle of the voltage or current necessary for calculating a parameter are measured. Thus, each parameter can be represented by $h \cos \varphi + jh \sin \varphi$. A simple method is recommended for measuring, by means of a phase meter and a voltmeter, four common-emitter h-parameters: (1) current amplification factor; (2) the

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ACCESSION NR: AP4029224

feedback factor; (3) input impedance when the output is short-circuited; (4) output admittance when the base is open-circuited. Measurement circuit diagrams are supplied, as well as a formula for evaluating the accuracy of the measurements. The method is also recommended for measuring parameters of other quadrupole networks (amplifiers, voltmeters, etc.). Orig. art. has: 7 figures, 13 formulas, and 2 tables.

ASSOCIATION: none

SUBMITTED: 20Apr63

DATE ACQ: 28Apr64

ENCL: 00

SUB CODE: EC

NO REF SOV: 002

OTHER: 001

Card 2/2

BR

ACCESSION NR: AP4026148

S/0108/64/019/003/0036/0041

AUTHOR: Yuzhakov, V. V.

TITLE: AGC in transistorized resonant amplifiers

SOURCE: Radiotekhnika, v. 19, no. 3, 1964, 36-41

TOPIC TAGS: AGC, resonant circuit AGC, negative feedback AGC, transistorized amplifier AGC

ABSTRACT: A new AGC method in which an impedance in the emitter circuit is varied is described; the impedance is represented by a resonant circuit (see Enclosure 1) in which the junction capacitance of a silicon diode is used as a control element. J. Carrol's formula ("New Semiconductor-Device Circuits") is used for analyzing the voltage gain of this circuit, and two sets of operating conditions ($\omega L_2 \gg \omega L_1$ and ωL_1 is comparable to ωL_2) are considered. The variation of the junction capacitance of D808 and D813 diodes was measured

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ACCESSION NR: AP4026148

(curves supplied). It is claimed that: (1) A 60-db variation of the input voltage causes only a 2-db variation in the output voltage with the AGC voltage applied to only one stage; (2) Transistorized AGC power consumption is of the same order as that in electron-tube circuits; (3) Nonlinear distortion is small in a wide dynamic range of the input voltages because no d-c variation occurs; (4) The stage covered with AGC has low losses; (5) With weak signals, the amplifier passband becomes narrower which improves the noise immunity of the device. Orig. art. has: 5 figures and 21 formulas.

ASSOCIATION: none

SUBMITTED: 16Jul62

DATE ACQ: 16Apr64

ENCL: 01

SUB CODE: EC

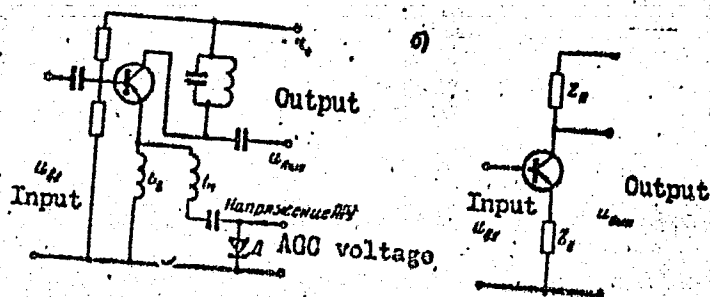
NO REF SOV: 001

OTHER: 003

Card 2/3

ACCESSION NR: AP4026148

ENCLOSURE: 01



AGC in transistorized resonant amplifiers

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YUZHAVOV, Yu.

A helicopter with the geologists. Gruzhd. av. 22 no. 617 Je '65.

(MIRA 1816)

PANTELEYVEA, N.S.; LYZLOVA, S.N.; YUZHANOVA, G.A.

Participation of ATP and creatine phosphate in the process of
muscle contraction. Vest. LGU 19 no.21:109-115 '64
(MIRA 18:1)

YUZHAKOVA, K.F.

Significance of fractional determination of bilirubin in newborn infants. Trudy TSIU 78:41-44 '65. (MIRA 18:9)

1. Kafedra pediatrii (zav.- prof. R.L. Gamburg) Tsentral'nogo instituta usovershenstvovaniya vrachey.

SHMAKOVA, V.I.; YUZHAKOVA, H.H.; REZNICHENKO, V.G.; GLEBOV, I.T.; VOLKOV, A.S.;
URZLYA, N.Ye.; BEKHTEREV, P.A.; RYS', G.I.; VORONINA, M.M.; GVOZDINTS-
KIY, I.M.; VARAKSHINA, M.P.; MASTERSKIKH, M.A.; GONCHAROVA, V.A.;
BICHEVINA, A.N.; SOROKIN, M.A., red.; GRIN', Ye., tekhn.red.

[Economy of Altai Territory during the past 40 years; a statistical
manual] Narodnoe khoziaistvo Altaiskogo kraia za 40 let. Sovetskoi
vlasti; statisticheskii sbornik. Barnaul, Altaiskoe knizhnoe izd-vo,
1957. 110 p. (MIRA 11:3)

1. Altayskiy kray. Statisticheskoye upravleniye. 2. Statisticheskoye upravleniye Altayskogo kraya (for all except Sorokin, Grin')
 1. 3. Nachal'nik Statisticheskogo upravleniya Altayskogo kraya (for Sorokin)
- (Altai territory--Statistics)

TSITSIN, N.V., akademik; CHERKASSKIY, Ye.S.; BUSHCHIK, T.N.; SHMAL'KO, V.F.;
LYUDOVA, G.L.; KILIMNIK, Ye.Ye.; BELYAYEVA, A.S.; Prinsipal'
uchastiya: AZIYASHVILI, L.N.; ANTONOVA, I.I.; VOLKOVA, A.A.;
DOBROCHINSKAYA, I.B.; MIROSHNICHENKO, O.N.; YUZHAKOVA, N.P.

New data on the control of cabbage flies (*Chortophila brassicae*
Bouché and *Chortophila florealis* Fall.). Dokl. AN SSSR 144
no. 2: 457-460 My '62. (MIRA 15:5)

1. Glavnyy botanicheskiy sad AN SSSR, Opytno-pokazatel'nyy
sovkhoz im. Mossoveta i Sovkhoz im. A.M. Gor'kogo.
(Cabbage--Diseases and pests)

KOSTYANOVSKIY, R.G.; YUZHAKOVA, O.A.; BYSTROV, V.F.

Reactions of ethylenediaminecarbinols with diazo compounds. Izv. AN SSSR.
Otd.khim.nauk no.9:1666-1669 S '62. (MIRA 14:10)

1. Institut khimicheskoy fiziki AN SSSR.
(Methanol) (Diazo compounds)

KOSTYANOVSKIY, R.G.; YUZHAKOVA, O.A.; BYSTROV, V.F.

Conjugation of ethylenimine nitrogen with an activated double
bond. Zhur. VKhO 10 no.2:229-231 '65. (MIRA 18:6)

1. Institut khimicheskoy fiziki AN SSSR.

KOSTYANOVSKIY, R.G.; YUZHAKOVA, O.A.---

N-ethyleniminization of primary amines. Zhur.ob.khim. 32 no.8:2743-
2744 Ag '62. (MIU 15:9)

1. Institut khimicheskoy fiziki AN SSSR.
(Amines) (Ethylenimine)

BYSTROV, V. F.; YUZHAKOVA, O. A.; KOSTYANOVSKIY, R. G.

Gammet constants of the ethylenimine cycle. Dokl. AN SSSR
147 no.4:843-845 D '62. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom
V. N. Kondrat'yevym.

(Ethylenimine) (Heterocyclic compounds)

KOSTYANOVSKIY, R.G.; YUZHAKOVA, O.A.

Alkylidene-bis-ethylenimines. Dokl. AN SSSR 159 no.1:142-
145 N '64. (MIRA 17:12)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno
akademikom I.L. Knunyantsom.

YUZHAKHIN

YUZHAKHIN, N.F., staryshiy prepodavatel'

~~Designing~~ central hot-water systems operating by gravity and with-
out radiators. Nauch. dokl. vys. shkoly; stroi. no. 4:245-254 '53.

(MIRA 12:7)

(Hot-water heating)

YUZHALIN, P.A., tekhn.

Switching of a PSM-1000 welding transformer for automatic welding
under flux. Svar.proizv. no.1:33-34 Ja '62. (MIRA 15:3)

1. Baltiyskiy zavod im. Ordzhonikidze.
(Electric welding—Equipment and supplies)

NATOCHIN, V.M., dotsent; KURBATOV, M.N., inzh.; YUZHANIN, E.I., inzh.

Automatic control of autoclave operations at the Novosibirsk
air-entrained concrete plant. Stroim. 7 no. 5:27-29 Ky '61.
(MIRA 14:6)

(Novosibirsk--Concrete plants) (Autoclaves)
(Automatic control)

YUZHANIN, L.

Coupled electric locomotives in mins of the Arctic region. Mast.
ugl. 9 no.1:13 Ja '60. (MIRA 13:8)
(Pechora Basin--Mine railroads)

IPPOLITOV, M.F., dotsent, kand.tekhn.nauk; YUZHANINOV, A.G., inzh.

Investigating the work of a house sewerage system collecting the
waste waters of a metallurgical plant. Trudy Ural.politekh.inst.

no.85:43-52 '60.

(MIRA 14:8)

(Sewerage)

YUZHANINOV, A.G.

Using hydrocyclones to clarify water. Vop. vod. khoz. i gidrol.
Urals no.2:57-68 '63. (MIRA 18:3)

Yuzhaninov, I. A.
AUTHOR: Yuzhaninov, I.A. (Engineer)

136-7-7/22

TITLE: Combustion diagrams of coke in non-ferrous metallurgical furnaces. (Diagrammy gorennya koks v shakhtnykh pechakh tsvetnoy metallurgii).

PERIODICAL: "Tsvetnyye Metally"
1957, No. 7, pp. 32-35 (USSR).

ABSTRACT: Laboratory experiments are reported on the combustion of coke in the presence of various proportions of fire-clay lumps of equal size in a 100 mm dia tube furnace. The coke/fireclay ratio and the thickness of the layer covered the ranges 1 - 0.1 (by volume) and 50-200 mm, respectively and blowing rates were 17-121 litres/min. The mixture was heated to 1000 or 1100 C before blowing was started, and during combustion frequent gas samples were taken for analysis for CO, CO₂ and O₂. The contents of these in the combustion gas are plotted against thickness of the layer for various blowing rates. Corresponding graphs taken from a report of combustion investigations in full-scale copper-nickel ore smelting shaft furnaces are shown. An approximate equation for calculating the length of the oxidizing zone in a coke/inert-material combustion layer

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136-7-7/22
Combustion diagrams of coke in non-ferrous metallurgical
furnaces. (Cont.)

was deduced from the laboratory results.

There are 5 figures and 6 references, all Slavic.

ASSOCIATION: Leningrad Mining Institute.
(Leningradskiy Gornyy Institut).

AVAILABLE: Library of Congress

CARD 2/2

SOV/137-58-7-14616 D

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 96 (USSR)

AUTHOR: Yuzhaninov, I.A.

TITLE: An Investigation of the Operation of the Melting Zone in Shaft
Furnaces for Sulfide Cupro-nickel Ores (Issledovaniye raboty
plavil'noy zony shakhtnykh pechey dlya sul'fidnykh medno-
nikelevykh rud)

ABSTRACT: Bibliographic entry on the author's dissertation for the de-
gree of Candidate of Technical Sciences, presented to the
Leningr. gorn. in-t (Leningrad Mining Institute), Leningrad,
1957

ASSOCIATION: Leningr. gorn. in-t (Leningrad Mining Institute), Leningrad

1. Furnaces---Operation 2. Copper-nickel ores--Processing

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SOV/136-59-2-7/24

AUTHORS: Diomidovskiy, D.A., Shalygin, L.M., Gal'nbek, A.A.
and Yuzhaninov, I.A.

TITLE: Continuous Converting of Mattes (Nepriyemnoye
konvertirovaniye shteynov)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 2, pp 27-34 (USSR)

ABSTRACT: The authors discuss some shortcomings of the present
converter process, the chief of which is its
discontinuity. They discuss the heat balance of the
process in terms of the variation of the calorific
value of the matte and minimal permissible blast
utilisation with variation in its copper content
(Fig 1 and 2 respectively). Preliminary tests showed
that blowing the matte in suspension was not effective
and the authors concentrated on top blowing through water-
cooled tuyeres of the matte flowing through a container
(Fig 3). Work with cold hydraulic models and hot
laboratory-scale installations was followed by tests on
a 1-tonne (matte) hot installation at the Balkhashskiy
Medeplavil'nyy Zavod (Balkhash Copper-smelting Works).
Card 1/3 This (Fig 4) consisted of a cylindrical horizontal

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Continuous Converting of Mattes

furnace rotatable about a vertical axis. The furnace was lined with chrome-magnesite brick with heat insulation and had a welded iron shell. The matte entered at one end where the tuyere was located and flux was added, while the slag left at the other end. A type ZIF-51 compressor (rated at 200 nm³/hr at up to 6 atm gauge) and oxygen cylinders provided the blast. Facilities for temperature, gas-composition and flow measurements were provided. Observations of the interaction between the blast, matte, slag and lumps of flux (Fig 5) showed that a tuyere inclination was an important factor. Fig 6 shows the degree of utilisation of oxygen (%) as a function of tuyere inclination (degrees) for heights of tuyere nose above the surfaces of 150 to 200 mm (curve 1) and 250 to 300 mm (curve 2). Optimal conditions for air blowing were established as 70 to 80° tuyere inclination, 4 to 5 atm gauge blast pressure, 300 to 350 mm tuyere-nose height above bath. The results (table 1) showed that the tuyere height above the bath could be increased without reducing oxygen utilisation by oxygen-enrichment of the blast. Chemical

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SOV/136-59-2-7/24

. Continuous Converting of Mattes

compositions of products obtained under the above optimal condition with air blast (tables 2 and 3) were 0.37 to 1.64 and 23.58 to 28.80% Cu and SiO_2 , respectively in slag and 72.66 to 78.49 and 98.52 to 99.60% Cu in white matte and crude copper respectively. The authors outline one of their proposed continuous-converter processes (the converter is shown in Fig 7) put forward on the basis of their experimental results. They propose a blast pressure of at least 6 to 10 atm gauge and suggest that because of its high concentration the SO_2 in the converter waste gas could be utilised. They consider the process particularly attractive with blast oxygenation and applicable to various materials e.g. ferronickel. There are 7 figures, 3 tables and 2 Soviet references.

ASSOCIATION: Leningradskiy Gornyy Institut (Leningrad Mining Institute)

Card 3/3

DIOMIDOVSKIY, Dmitriy Aleksandrovich, prof., doktor tekhn. nauk;
SHALYGIN, Len Mikhaylovich, dots.; GAL'NEK, Arnol'd
Andreyevich, inzh.; YUZHANINOV, Igor' Aleksandrovich, kand.
tekhn. nauk; MIKHAYLENKO, A.Ya., dots., kand. tekhn. nauk,
retsenzent [deceased]; ARKHANGEL'SKAYA, M.S., red. izd-va;
KARASEV, A.I., tekhn. red.

[Calculation of pyrometallurgical processes and furnaces for
nonferrous metallurgy] Raschety piroprotsessov i pechei tsvet-
noi metallurgii. Pod nauchnoi red. D.A. Dionidovskogo. Mo-
skva, Metallurgizdat, 1963. 459 p. (MIRA 16:3)
(Nonferrous metals—Metallurgy)

YUZHANINOV, I.A.; TELYATNIKOV, G.V.; BEKHTEV, G.I.; KNYAZEV, A.T.;
KOROLEVA, A.A.

Testing a three-chamber fluidized bed cooler for the cooling of
alumina. TSvet. met. 36 no.6:50-55 Je '63. (MIRA 16:7)

(Fluidization—Cooling)
(Aluminum oxide—Cooling)

ARLYUK, B.I.; TELYATNIKOV, G.V.; YUZHANINOV, I.A., rukovoditel' raboty;
Prinimali uchastiye: KOROLEVA, A.A.; VDOVIN, L.V.

Material carried away from a fluidized bed. TSvet. met. 35
no.7:48-51 J1 '63. (MIRA 16:8)
(Fluidization) (Fly ash)

YUZHANINOV, I.A.

Performance of a drop bottom hearth in vertical multichamber
fluidized bed equipment. Izv. vys. ucheb. zav.; tsvet. met.
7 no.5:100-106 '64 (MIRA 13:1)

1. Kafedra tyazhelykh tsvetnykh i blagorodnykh metallov Lenin-
gradskogo gornogo instituta.

BURSHTEYN, L.L.; YUZHELEVSKIY, Yu.A.; KOGAN, E.V.; KLEBANSKIY, A.L.

Structure of isomers of 1,3,4-tris (3,3,3-trifluoropropyl)-1,
3,5-trimethylcyclotrisiloxane. Zhur. ob. khim. 33 no.3:2789-
2790 Ag '63. (MIRA 16:11)

11234-66	EWI(m)/EMP(f)/Y/EMP(k)	RM
ACC NR: AP6002223	SOURCE CODE: UR/0080/65/038/012/2862/2865	
<p>AUTHOR: ^{44 55} Yuzhelevskiy, Yu. A.; ^{44 55} Ganitskiy, A. B.; ^{44 55} Kogan, E. V.; ^{44 55} Klebanetskiy, A. L. ⁶⁵</p>		
<p>ORG: All-Union Scientific Research Institute of Synthetic Rubber ^{44 55} Lebedev (Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka.)</p>		
<p>TITLE: Method of studying the polymerization kinetics of (3,3,3-trifluoropropyl)-methylcyclsiloxanes using ultrasonics ^{44 55}</p>		
<p>SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 12, 1965, 2862-2865</p>		
<p>TOPIC TAGS: ultrasonic equipment, ultrasonics, polymerization, silicone, polysiloxane</p>		
<p>ABSTRACT: A pulsed ultrasonic device has been constructed for studying the polymerization kinetics of (3,3,3-trifluoropropyl)methylcyclsiloxanes in the 0 to 200C reaction temperature range using small samples. The device employs a vibrator of lead zirconate titanate whose Curie point (~250C) is high enough to allow operation in this temperature range. The special reaction vessel used is diagramed in the original article. Reaction temperature-ultrasonic propagation velocity calibration curves were plotted for the trimer, tetramer, pentamer, a 60,000 mol wt polymer, and various-concentration solutions of a rubber-like 950,000 mol wt polymer. These calibration curves make it possible to determine monomer conversion in the course of the reaction from ultrasonic propagation velocity measurements, with an accuracy of within $\pm 2-3\%$. Orig. art. has: 3 figures. ^{44 55} [SM]</p>		
Card 1/1	UDC: 541.64:678.7+534.321.9	

11254400

ACC NR: AP6002223

SUB CODE: 13.07 SUBM DATE: 12Feb64/ ORIG REF: 003/ OTH REF: 014

ATD PRESS:

OC

Card 2/2

ACCESSION NR: AP4042083

~~S/0079/64/03.1/206/1780/1782~~

AUTHOR: Yuzhelavskiy, Yu. A.; Kogan, E. V.; Klebanskiy, A. L.; Larionova, O. N.

TITLE: 3,3,3 Trifluoropropylmethylcyclosiloxanes isomers

SOURCE: Zhurnal obshchey khimii, vol. 34, no. 6, 1964, 1780-1782

TOPIC TAGS: trimer, pentamer, stereoisomer, hydrolisate

ABSTRACT: The authors established that a trimer, obtained during the catalytic destruction of the hydrolisate 3,3,3-trifluoropropylmethylcyclosiloxane, is a mixture of two stereoisomers. During the catalytic destruction process, in a Claisen flask at 200° (4 mm), a distillate was obtained which was a cyclic 3,3,3-trifluoropropylmethylcyclosiloxanes mixture. The authors concluded that further investigation is necessary to clarify the structure of the compound.

ASSOCIATION: none

SUBMITTED: 04Feb64

ENCL: 00

SUB CODE: 00

NO REF SOV: 001

OTHER: 003

Card 1/1

YUZHANSKIY, D. A.

Yuzhanskiy, D. A. - "Experience in the planting of field protection belts in the Rostov Oblast," Yestestvoznaniye v shkole, 1949, No. 1, p. 36-40

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

S/079/62/032/001/016/016
D204/D302

AUTHORS: Klebanskiy, A.L., Yuzhelevskiy, Yu.A., Kogan, E.V.,
and Kagan, Ye.G.

TITLE: The isomerism of 1,3,5-tris(3,3,3,-trifluoropropyl)-
1,3,5,trimethyl cyclotrisiloxane

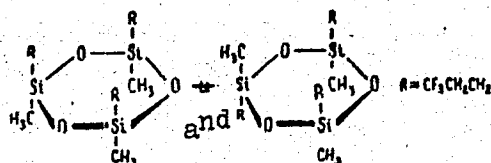
PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 1, 1962, 323-324

TEXT: A description is given of the hydrolysis products of 3,3,3
trifluoropropyl methyl dichlorosilane, at 190-210°C/18 mm Hg, in
the presence of 0.5 % KOH (as 50 % aq. solution). The distillate,
collected at 130° C/18 mm Hg, consisted of ~80 % of crystals (I)
of m.p. 35.2°C, b.p. 243° C/759 mm Hg, d_4^{40} 1.2309, n_D^{40} 1.3590 and
~20 % of a liquid (II) of m.p. -15.5°C, b.p. 239°C/759 mm Hg,
 d_4^{20} 1.2576 and n_D^{20} 1.3669. The molecular weights were practically
identical. Either compound rearranged to a mixture of I and II when
heated with KOH under the above conditions and it was, therefore,
concluded that I and II were stereoisomers:

Card 1/2

The isomerism of ...

S/079/62/032/001/016/016
D204/D302



Further work is now in progress to determine which of the 2 stereo-isomers corresponds to which structure. There is 1 non-Soviet-bloc reference. The reference to the English-language publication reads as follows: O.R. Pierce, G.W. Holbrook, O.K. Johansson, J.C. Saylor, and E.D. Brown, Ind. Eng. Ch., 52, 783, 1960.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka, imeni S.V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber im. S.V. Lebedev)

SUBMITTED: August 15, 1961

Card 2/2

YUZHELEVSKIY, Yu.A.; KOGAN, E.V.; KLEBANSKIY, A.L.; LARIONOVA, O.W.

Rearrangement of 3,3,3-trifluoropropylmethylsiloxanes in
acetone under the effect of basic catalysts. Zhur. ob. khim.
34 no.8:2810 Ag '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka imeni S.V. Lebedeva.

YUZHNEVSKIY, Yu.A.; KOGAN, E.V.; KLEBANSKIY, A.L.; LARIONOVA, O.N.

Rearrangement of 3,3,3-trifluoropropylmethylsiloxanes in
acetone under the effect of basic catalysts. Zhur. ob. khim.
34 no.8:2810 Ag '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka imeni S.V. Lebedeva.

YUZHENKO, N.N.; SHELENGOVSKIY, D.F., inzh.

Protective tree planting improves the microclimate. Pat' i put.
khoz. 9 no.9:41 '65. (MIRA 18:9)

1. Stantsiya Mena, Yugo-Zapadnoy dorogi.

YUZHILEVSKIY, A.I.

Headframe construction for multirope hoisting. Shakh. stroi.
no.1:20-24 Ja '59. (MIRA 12:1)

1.Nachal'nik stroitel'stva pod'yema stroitel'nogo uchastka No.15.
(Mine hoisting--Equipment and supplies)

YUZHNIK, N.V.

For further improvement in medical care. Zdrav. Bel. 6 no.12:35
38 D '60. (MIRA 14:1)

1. Zamestitel' predsedatelya ispolkoma Gomel'skogo oblastnogo
Soveta deputatov trudyashchikhaya.
(GOMEL' PROVINCE—MEDICAL CARE)

21(1),5(2)
AVIATION

TITLE

Iskhorin, B. E., Gilyarov, V. S., Sviridova, E. A.,
Arbatskii, A. M., Tashin, A. I.
Separation Methods of Separating Barium From Radium, Aluminum
From Gallium, and Strontium From Barium (Sortirovannyye metody
razdeleniya bariya i radiya, aluminia i galliya, tsirkoniya i
strontiya)

THEORETICAL

ABSTRACT

For the separation of elements chemically close to each other the chromatographical method was applied, which due to its small capacity cannot be applied on analytical scale. The efficiency of the method can be sufficiently increased by the use of an appropriate separation agent, which decreases the active concentration of the elements to be separated; this could mean in first approximation a decrease of the mass of the elements to be separated. The difference in the formation constants of the complex compounds increases the separation factor. It was established that for the separation of barium and radium, strontium and calcium, and gallium and aluminum, the use of EDTA, citric acid, nitrotriacetic acid and ethylenediamine tetraacetic acid (EDTA) as eluting agents can be used with best results. The separation factor was determined for 9 different cationites solved in different acids. Maximum separation factors were achieved under the following conditions: 1) use of hydrochloric acid; 2) Kationite KM-2 with 6% potassium permanganate; 3) separation of barium from radium with 2% EDTA; 4) separation of strontium from barium with 2% EDTA; 5) separation of gallium from aluminum with 2% EDTA; 6) separation of aluminum from gallium with 2% EDTA; 7) separation of strontium from barium with 2% EDTA; 8) separation of gallium from aluminum with 2% EDTA; 9) separation of strontium from barium with 2% EDTA.

Card 1/6

Card 2/4

Card 3/4

The separation of strontium and barium is achieved by means of ion-exchanging resins and a mixture of sulfuric and fluorhydric acids. The best conditions are: strontium concentration 20-30 g/l, sulfuric acid 0.65-0.75 M, mol relation between fluor and strontium 0.7-1.0, working out a column of 10% of the resin weight. Kationite KM-2, granulation 60-100 mesh, height of the sorbent layer 1-2.5 m, filtering velocity of the solution 1.5-2 cm/min, achievable efficiency of 15-20 kg/h per m² of the cross section of the column. By using the described method 100 kg of barium-free strontium can be separated. Separation of gallium from aluminum is achieved by means of ion-exchanging resins and a mixture of sulfuric and fluorhydric acids. The best conditions are: gallium concentration 20-30 g/l, sulfuric acid 0.65-0.75 M, mol relation between fluor and gallium 0.7-1.0, working out a column of 10% of the resin weight. Kationite KM-2, granulation 60-100 mesh, height of the sorbent layer 1-2.5 m, filtering velocity of the solution 1.5-2 cm/min, achievable efficiency of 15-20 kg/h per m² of the cross section of the column. By using the described method 100 kg of aluminum-free gallium can be separated. Separation of strontium from barium is achieved by means of ion-exchanging resins and a mixture of sulfuric and fluorhydric acids. The best conditions are: strontium concentration 20-30 g/l, sulfuric acid 0.65-0.75 M, mol relation between fluor and strontium 0.7-1.0, working out a column of 10% of the resin weight. Kationite KM-2, granulation 60-100 mesh, height of the sorbent layer 1-2.5 m, filtering velocity of the solution 1.5-2 cm/min, achievable efficiency of 15-20 kg/h per m² of the cross section of the column. By using the described method 100 kg of barium-free strontium can be separated. Separation of gallium from aluminum is achieved by means of ion-exchanging resins and a mixture of sulfuric and fluorhydric acids. The best conditions are: gallium concentration 20-30 g/l, sulfuric acid 0.65-0.75 M, mol relation between fluor and gallium 0.7-1.0, working out a column of 10% of the resin weight. Kationite KM-2, granulation 60-100 mesh, height of the sorbent layer 1-2.5 m, filtering velocity of the solution 1.5-2 cm/min, achievable efficiency of 15-20 kg/h per m² of the cross section of the column. By using the described method 100 kg of aluminum-free gallium can be separated.

To obtain metal gallium, efficiency of the developed installation: 20 kg/h gallium per m² of the cross section of the column. There are 7 figures, 6 tables, and 10 references.

November 21, 1975

SUBMITTED:

S/136/61/000/011/002/007
E193/E383

AUTHORS: Laskorin, B.N. and Yuzhin, A.I.

TITLE: Sorption and extraction methods of separation of gallium from aluminium

PERIODICAL: Tsvetnyye metally, no. 11, 1961, 44 - 47

TEXT: The object of the present investigation was to study the adsorption of gallium, aluminium and associated impurities, (iron, manganese, copper,) by solid and liquid ion-exchange materials. The solid exchangers included cation resins K4-2 (KU-2), CG-1 (SG-1), PΦ (RF) and anion resins 3A3-107 (EDE-10P), AH-2Q (AN-2F), B7-1 (VP-1), AM, AM7 (AMP), the liquid exchangers comprising alkylamines, trioctylamines, isotrioctylamines, isodioctylamines and n-didecylamines. In the study of sorption of gallium by solid exchangers, sorption from alkaline, sulphuric-acid and hydrochloric-acid solutions was investigated. It was found that gallates were not absorbed from alkaline media. In sulphuric-acid solutions both gallium and aluminium are adsorbed on cation-exchangers, the mode of sorption and the separation factor being unaffected by the variation of pH from

Card 1/10 6

Sorption and extraction

S/136/61/000/011/002/007
E193/E383

3.5 to 1 or even lower. Selective adsorption of gallium on anion-exchangers takes place in hydrochloric-acid solutions even when they have a high aluminium content. The enclosed graph shows the distribution coefficient K_p , for gallium adsorbed on the anion-exchanger AN-2F against the concentration, M , of hydrochloric-acid solution. The maximum value of K_p at 9-M HCl is attributed to the formation of complexes of the $HGaCl_4$ -type. No adsorption of aluminium from acid solutions takes place, its distribution coefficient in this case being lower than 2×10^{-3} . The distribution coefficients and separation factors for various resins are given in Table 1. Copper and divalent iron are adsorbed from hydrochloric-acid solutions of 8-M or higher concentration, the distribution coefficient for these elements not exceeding 16. Adsorption of trivalent iron increases with increasing acidity of the HCl solution and its distribution coefficient reaches a maximum of 10 at a concentration of 8-M. These results indicate that

Card 2/5

Sorption and extraction

S/136/61/000/011/002/007
E193/E383

successful extraction of gallium from HCl solutions requires a concentration higher than $3.7 \cdot 10^{-4}$ and reduction of trivalent iron to its bivalent form. The results of the next series of experiments are given in Table 2, where the distribution coefficients are given for gallium and iron extracted from HCl solutions by various amines. The data reproduced in Table 2 relate to HCl solutions with an Al:Ga concentration ratio equal or higher than 610. In analogy to anionic resins, amines do not extract Al from HCl solutions since this metal does not form complexes of the $(GaCl_4)$ -type, the same applying to Cu, Mn and Fe. A study of the kinetics of Ga extraction showed that the state of equilibrium was reached in about 2.5 min. To prevent formation of a third phase, 0.1-m decyl alcohol (which increases the solubility of the complexes in the organic constituent) had to be added to amines. Re-extraction of Ga was successfully carried out with 5% NaCl solution, H_2SO_4 solution with pH = 1 to 1.5, or with a 5% NaOH solution. Based on the laboratory results, a method of extraction of Ga from the waste products (anodic alloy) of electrolytic-aluminium production was

Card 3/5

S/136/61/000/011/002/007
E193/E383

Sorption and extraction

developed. The raw material (anodic alloy) was comminuted to -0.5 mm particle size and dissolved in HCl so as to obtain a solution of a concentration not lower than 3.7-M. Trivalent Fe in the solution was reduced to bivalent, either by adding iron shavings or by the method of internal electrolysis, copper being at the same time precipitated on iron. The solution was filtered through a bed of anionic resin which was subsequently washed with a 5-m HCl solution. Ga was desorbed with a 0.5-M HCl solution, which was subsequently treated with NaOH to produce gallate from which metallic Ga was obtained by electrolysis. The results obtained by this method are illustrated by data given in Table 3. In the second method, Ga was extracted from Al solution with a kerosene solution containing 0.1-M n-trioctylamines or tri(2-ethylhexyl)amine and 0.1-M decyl alcohol. Re-extraction was carried out with a 5% NaOH solution. The separation factor attained for Ga in this method was 4×10^4 .

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Sorption and extraction

S/136/61/000/011/002/007
E193/E383

There are 1 figure, 3 tables and 9 references: 4 Soviet-bloc and 5 non-Soviet-bloc. The three English-language references mentioned are: Ref. 4 - K.A. Kraus, F.J. Nelson. Amer.Chem.Soc., 1955, v. 77, 1391; Ref. 5 - K.A. Kraus, F. Nelson, G.H. Smith - J. Phys. Chem., 1954, v. 58, 11; Ref. 8 - A. Flaschenberg, J. Lavi, J. Tulipman - Che, Process. Engin., 1958, v.39, no. 10, 365.

Card 5

S/830/62/000/001/004/012
E193/E383

AUTHORS: Laskorin, B.N. and Yuzhin, A.I.

TITLE: Extraction of gallium from the anode alloy with the aid of liquid ionites

SOURCE: Ekstraktsiya; teoriya, primeneniye, apparatura. Ed. by A. P. Zefirov and M. N. Semyavin. Moscow. Gosatomizdat, 1962. 112 - 116

TEXT: The anode alloy, obtained during electrolytic refining of aluminium, constitutes a practically unlimited source of gallium, the extraction method providing the most convenient means of recovering gallium from raw materials of this type. The object of the present investigation was to establish the optimum conditions for separating gallium from aluminium by studying both the static and dynamic characteristics of the process. Primary, secondary and tertiary amines were used as the extracting reagents. None of these was found to be effective in sulphuric acid solutions. All other factors being equal, best results in hydrochloric acid solutions were obtained with tertiary amines, tri(2-ethylhexyl) amine being more effective than n-trioctyl amine; Card 1/4

Extraction of gallium

S/830/62/000/001/004/012
E193/E383

the distribution coefficient D , attained with the former reagent, increased from 0.2 at 0.2 mole.HCl to approx. 10^{-1} at 4 mole.HCl (the Al/Ga ratio in the experimental solutions was not lower than 511). Little aluminium was extracted by the reagents. studied, the value of D for this metal not exceeding 10^{-3} , irrespective of the acidity of the solution. A study of the kinetics of the process showed that equilibrium was reached in less than 2.5 min. Since with increasing concentration of HCl the salting-out action of chlorine ions on the gallium complex became more pronounced, the formation of a third phase had to be prevented by adding to the amine 0.1 mole. decyl alcohol which increased the solubility of the complex in the organic phase. Re-extraction could be carried out with a 5% NaCl solution, a H_2SO_4 solution ($pH \approx 1-1.5$) or a 5% NaOH solution, the respective distribution coefficients attained being $D_{NaCl} = 0.33$, $D_{H_2SO_4} = 0.7$ and

$D_{NaOH} = 0.166$; the re-extraction time was 4-5 minutes.. Impurities such as manganese, iron (II) and copper (II) were not extracted

Card 2/4

Extraction of gallium

S/830/62/000/001/004/012
E193/E383

by tertiary amines and did not affect the extraction process; with increasing acidity of the solution the distribution coefficient of iron (III) increased, reaching a value of 10^3 at 8 mole. HCl. Based on the results obtained, the following method of extracting gallium from the anode alloy was developed. The starting material (anode alloy) is ground to 0.5 - 0.3 mm particle size and dissolved in hydrochloric acid to obtain a solution with acidity not lower than 1.5 - 2 mole HCl. The solution, containing gallium, aluminium, iron, manganese and copper, is treated with iron or aluminium turnings until complete reduction of trivalent iron is attained (instead of reduction with iron turnings internal electrolysis could be used). After extraction with a solution containing 0.1 mole. n-trioctylamine (or iso-octylamine) and 0.1 mole. decyl alcohol in kerosene (added in the ratio 1:10), gallium is re-extracted from the organic phase with a 5% NaCl solution, or a H_2SO_4 solution (pH - 1), used in the proportion 10:1. The re-extract is then treated with a 5% NaOH solution to obtain gallate, from which metallic gallium is obtained electrolytically. If extraction is carried out from unreduced solution, Card 3/4

Extraction of gallium

S/830/62/000/001/004/012
E193/E383

re-extraction is effected with a 5% NaOH solution, the formation of gallate and elimination of trace quantities of iron (III) taking place at the same time. The gallium content in the final solution is 10 g/l., the purification coefficient in respect of aluminium reaching a value of 40 000. There are 2 figures and 1 table.

Card 4/4

LASKORIN, B.N.; YUZHIN, A.I.

Separation of gallium from an anodic alloy with the aid
of liquid ion exchangers. Ekstr.; teor., prim., app.
no. 1:112-116 '62.

(MIRA 15:11)

(Gallium)
(Extraction (Chemistry))
(Ion exchange)

L 217D-66 EWT(m)/EWP(j) RM

ACCESSION NR: AP5024497

UR/0101/65/000/010/0006/0008

678.742.2+678.742.4+678.023.334

AUTHOR: Martynov, M. A.; Yuzhin, V. M.; Malushin, A. I.; Tkachenko, G. F.

TITLE: Compatibility of high density polyethylene with polyisobutylene

SOURCE: Plasticheskiye massy, no. 10, 1965, 6-8

TOPIC TAGS: polyisobutylene, polyethylene plastic, electric cable, crystalline polymer, amorphous polymer, polymer structure, elasticity, elongation, tensile stress, composite material

ABSTRACT: Reduction of rigidity in cable made of high density polyethylene by incorporation of amorphous polyisobutylene (PIB) was examined. X-ray examination of compositions comprising partially crystallized high density polyethylene with 5-20% amorphous PIB showed that the two polymers are incompatible. Introduction of PIB to the polyethylene improved its elasticity and increased its resistance to cracking, but progressively reduced its strength. Maximum relative elongation was obtained with 5% PIB. Improvement in the elastic properties of the composition is explained by increase in the amorphous phase content and decrease

Card 1/2

L 2170-66

ACCESSION NO: AP5024497

In the role of the crystalline phase and to polymer incompatibility. Orig. art.
has: 3 figures and 1 table

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, OC

NR REF SOV: 007

OTHER: 001

Card 2/2

YUZHINA, Z.I.

Survival of Azotobacter in cultivated and virgin soils of the
Kola Peninsula [with summary in English] Mikrobiologiya 27
no.2:201-205 Mr-Apr '58 (MIRA 11:5)

1. Institut mikrobiologii AN SSSR, Moskva.

(SOIL, microbiol.

Azotobacter in cultivated & virgin soils in Russia (Rus))

(AZOTOBACTER

in cultivated & virgin soils in Russia (Rus))

YUZHINA, Z.I.

Relation between the toxic properties of the Kola Peninsula soils and the amount of microbes antagonistic to Azotobacter in them, [with summary in English]. Mikrobiologiya 27 no.4:460-464 J1-A; '58 (MIRA 11:9)

1. Institut mikrobiologii AN SSSR.

(SOIL, mikrobiologii

toxic properties in relation to its content of microbes

antag. against Azotobacter species (Rus))

(AZOTOBACTER,

antag. by soil microbes, correlation with toxic properties of soil (Rus))

YUZHINA, Z.I., Cand Biol Sci -- (diss) "The role of microorganisms
in the toxicosis of ^{soils of the} Kola Peninsula ~~soils~~." Mos, 1959. 21 pp
(Inst of Microbiology of the Acad Sci USSR). 150 copies
(KL, 39-59, 103)

34

YUZHKOVA, R.N.

PINIGIN, A.P.; VYBOROV, G.P.; PETUKHOVA, O.S.; ISTOMINA, T.I.; YUZHKOVA, R.N.;
KOBETS, B.V.; SVETNIKOVA, L.D.; ZELIKMAN, Yu.Ya.; PADALKO, Z.F.;
MIKHAILOVSKAYA, Ye.M.; KALAYKOVA, A.D.; KOSTERIN, V.V.; BEIKO, V.I.;
KOSTENKO; MUSIKHINA

Distribution of brucellosis in Eastern Siberia and the Far East.
Tez. i dokl.konf.Irk.gos.nauch.-issl.protivochum. inst.no.2:55-56
'57. (MIFA 11:3)

(SIBERIA, EASTERN--BRUCELLOSIS)
(SOVIET FAR EAST--BRUCELLOSIS)

YUZHNAVAYA, D.M.

YUZHNAVAYA, D.M.; PODOCHNITSKIY, Ye.K.

Studying the polydispersion of cellulose triacetates. Soob.
nauch.rab.chl.VKHO no.3:36-39 '55. (MIRA 10:10)
(Cellulose acetates)

AVILOV, G.V.; YUZHNAIA, D.M.; BOTTLER, E.H.; NAZAROV, S.Kh.

Magnetic tape for recording of moving images. Tekh.kino i telev.
4 no.9:14-20 S '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut i Shost-
kinskiy filial Nauchno-issledovatel'skogo kinofotoinstitut.
(Magnetic recorders and recording)

WISHCHENKO, G.L.; BUGLAY, B.M., kandidat tekhnicheskikh nauk, redaktor;
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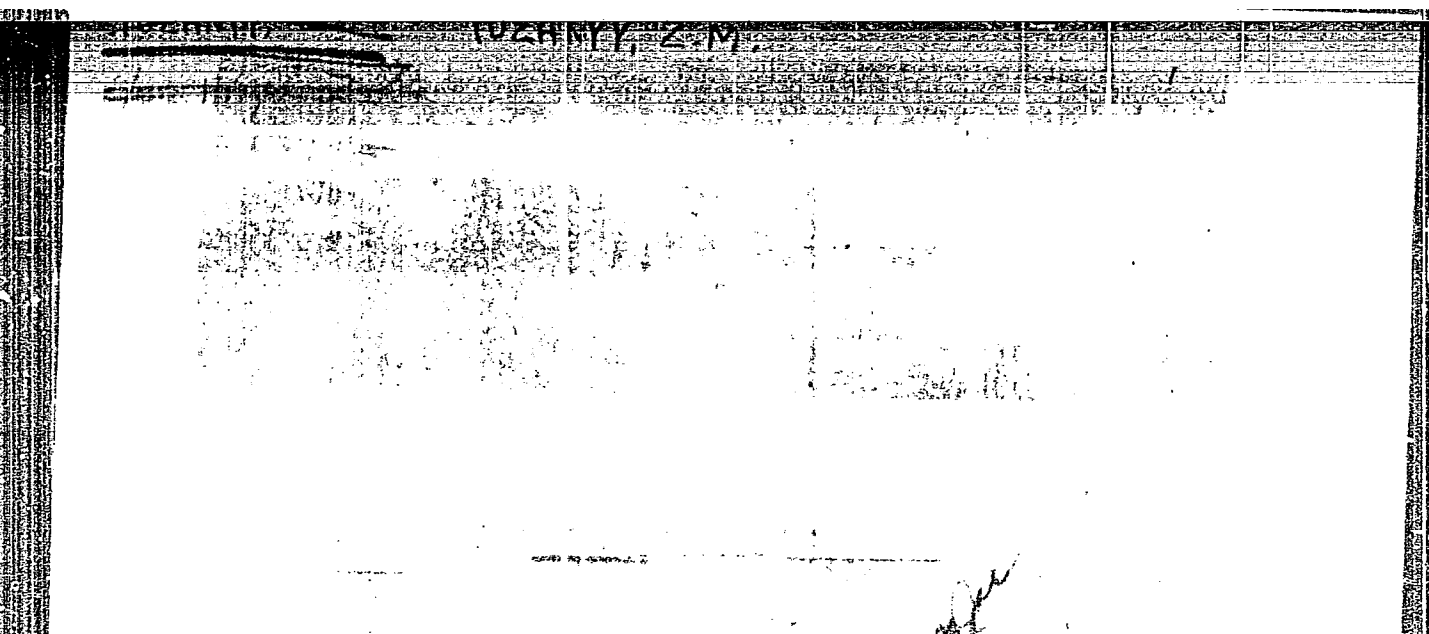
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CIA-RDP86-00513R001963310013-4"

AUTHOR: Yuzhnyy, Z.M.

SOV-69-58-4-18/18

TITLE: The Microscopic Determination of the Droplet Size in Oil Mists
(K mikroskopicheskomu opredeleniyu razmera kapel' maslyanykh tumanov)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 4, pp 507-510 (USSR)

ABSTRACT: The degree of dispersion of oil mists is mostly determined by the microscopic measurement of droplets settled on glass plates which are covered by a special substance. This substance ensures the stability of the contact angles of the oil droplets. The substance used for this purpose is in most cases basic zinc stearate. In the article dimethyldichlorosilane is recommended for the coating of the glass plates. A 10%-solution of dimethyldichlorosilane in benzene is used. The films on the glass plates are heat-resistant. The droplets on this coating have a completely regular form. Their size was measured by the device shown in Figure 1. The microscope used is of the petrographic type. The experiments have shown that for every oil type the contact angle of the droplets is the same and independent of the droplet size (Table 1). The fraction composition and the physical properties of the oils are given in Table 2. The two tables show that the spreading coefficient

Card 1/2

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The Microscopic Determination of the Droplet Size in Oil Mists

SOV-69-58-4-18/18

changes very little with the fractional and chemical composition and with the physical properties of the oils. Dimethyldichlorosilane may also be used for investigations of water mists, because it is hydrophobic. There are 2 tables, 1 photo, 1 graph, and 8 references, 4 of which are Soviet, 2 French, 1 American, and 1 English.

ASSOCIATION: Moskovskaya stantsiya Vsesoyuznogo instituta zashchity rasteniy - VASKhNIL (Moscow Station of the All-Union Institute for Protection of Plants - VASKhNIL)

SUBMITTED: February 28, 1957

1. Aerosols--Physical properties 2. Drops--Measurement

Card 2/2

USCOMAI-DC-55883

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Erecting heavy equipment. Nov.tekh.mont. i spets.rab. v
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1. Proyektno-konstruktorskaya kontora "Mekhanomontazhproyekt."
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